

For use by CanWest Equipment Rental
customers only - NOT for Distribution



SPYDERCRANE MINI-CRAWLER CRANE

URW295CUBRS SERIES



***Battery
Powered***

Supplemental Manual

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1. SAFETY PRECAUTIONS

WARNING

Observe all the precautions listed in this section to ensure maximum safety. Failure to observe the precautions may result in a serious accident or death.

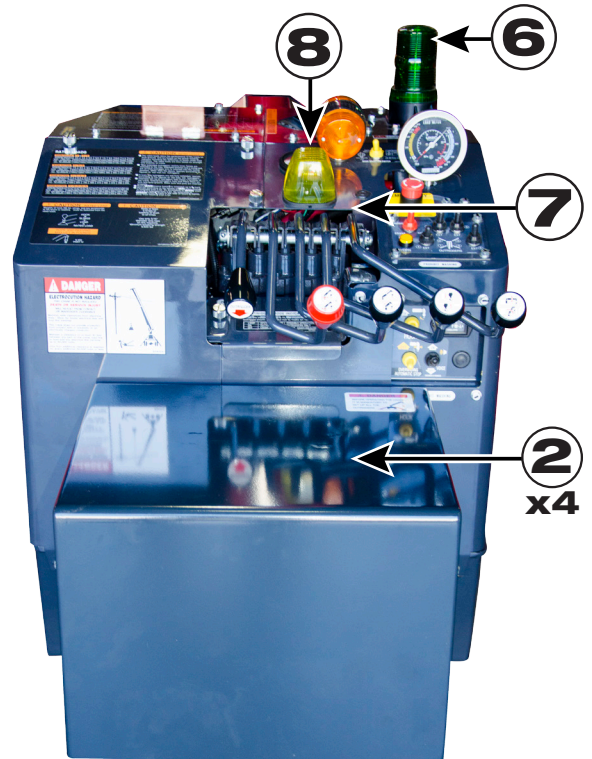
- 1** Be sure to perform an inspection before operating the crane, along with periodical inspections to make sure that the battery power unit is functioning correctly.
- 2** Make sure that the green strobe light is illuminated when the key is in the “ON” position. This light will indicate that the electric motor is running.
- 3** When the crane is not in use, always make sure that the motor is turned off.
- 4** When available, it’s recommended to plug the crane into a 110 volt AC outlet to insure the optimum operating speed and battery life are maintained.
- 5** When possible, keep the crane in a dry climate to keep the battery unit in peak condition.

2. EQUIPMENT DESCRIPTION

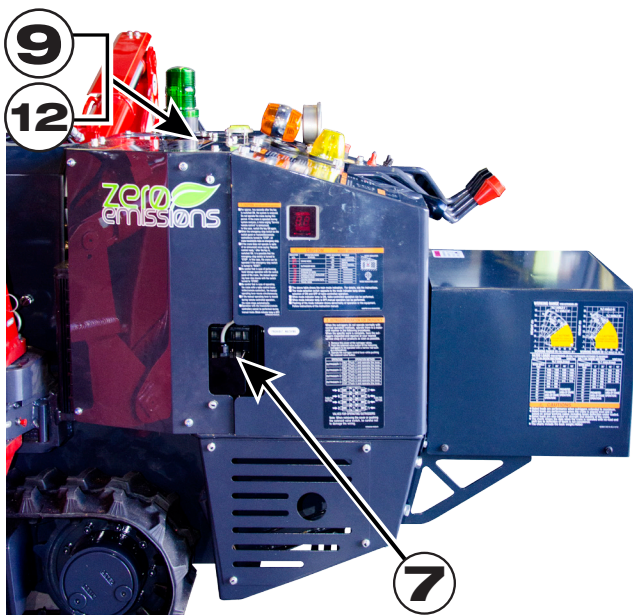
Major Equipment Locations

- 1 Electric Motor
- 2 12V Battery (x4)
- 3 Hydraulic Pump
- 4 Motor Controller
- 5 Battery Charger
- 6 Strobe Light
- 7 T.P.S. (x2)
- 8 Charge Level Gauge
- 9 Main Contact (Under Panel)
- 10 Cover
- 11 Belt (Under Cover)
- 12 Fuse (Under Panel)

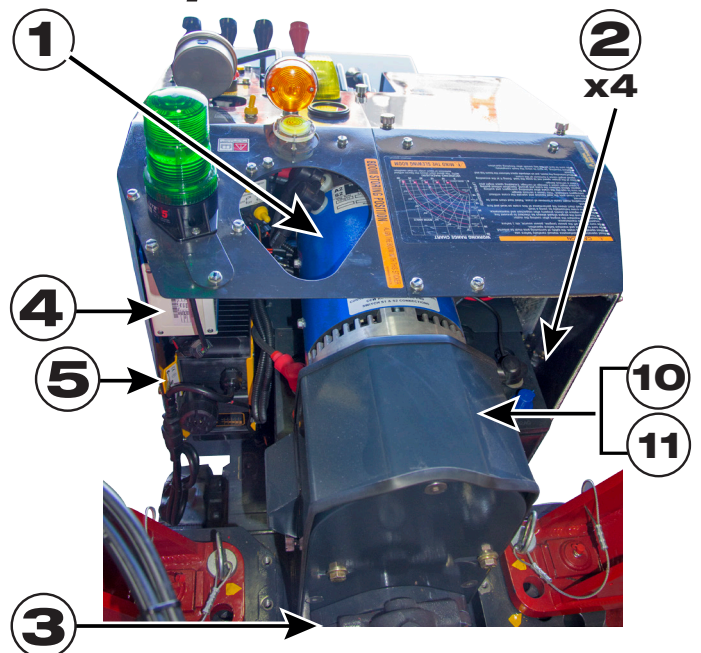
Front View



Side View



Top View



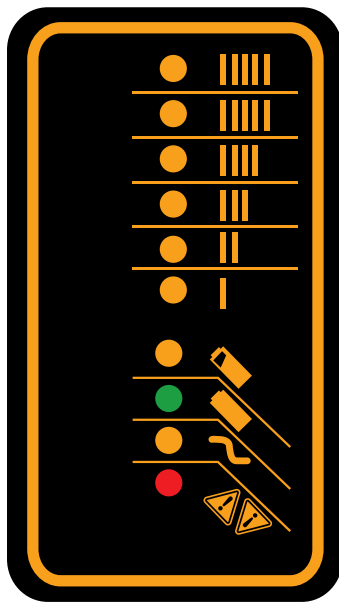





3. BATTERY CHARGER

Operating Instructions

CAUTION

Charger enclosure may be hot during charging. Use hand protection if handling the charger while charging.

- 1** Extension cords must be a 3-wire cord no longer than 100ft (30m) at 10AWG (6.0mm²) or no shorter than 25ft (7.5m) 16AWG (1.5mm²) per UL guidelines.
- 2** Only connect one QuiQ Charger to a single 15A circuit or the circuit may become overloaded.

	LED Color	Indication
	Ammeter (Amber) 	Solid: Displays approximate scale of current output during bulk phase. Flashing: High internal charger temperature.
	80% Charge (Amber) 	Solid: Bulk charge phase complete. 80% charged, in Absorption phase. Flashing: No battery is connected.
100% Charge (Green) 	Solid: Charging is complete. Charger in Maintenance Mode. Flashing: Absorption phase is complete.	
AC On (Amber) 	Solid: AC Power is good. Flashing: Low AC Voltage. Check voltage and extension cord length.	
Fault (Red) 	Flashing: Charger error. Reset charger and refer to Troubleshooting instructions.	

Maintenance Instructions

- 1** Do not expose the charger to oil, dirt, mud or direct heavy water spray when cleaning the vehicle.
- 2** The enclosure of the charger has been tested successfully to EN60529, meeting IP66. The AC supply inlet is rated to IP20, which is suitable for indoor use only. Keep all AC connections clean and dry.
- 3** If the detachable input power supply is damaged, replace with a cord that is UL or CSA listed/approved detachable cord, 3-conductor 16AWG minimum and rated SJT; terminating in a grounding type IEC 60320 C14 plug rated 250V, 13A minimum.

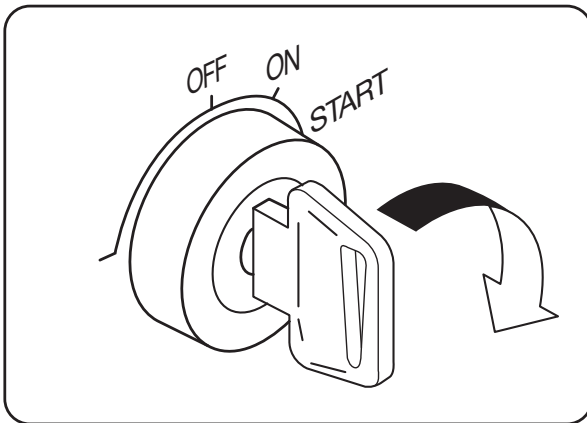
4. OPERATING THE CRANE

Preparing for Operation

! WARNING

- ◆ **Do not place any obstruction that will prevent airflow at the ventilation holes located on both sides of the electric-power unit. The cooling air will be blocked and cause the operating temperature of the electric motor to rise.**
- ◆ **Check for any unusual noises, vibrations, odors or rises in temperature after starting the electric power unit. If you notice anything unusual, turn the key switch to off to immediately shut off the electric power unit.**
- ◆ **Once the electric power unit has been shut off completely, perform an inspection to diagnose the trouble.**

Starting the Crane



- 1** Place the crane in its operating position.
- 2** Turn the key switch to the ON position. The electric motor should start and the green beacon should illuminate.
- 3** Always try to operate the crane with the batteries fully charged.
- 4** When travelling with the crane, always keep the throttle position in slow speed mode when the crane is not moving, in order to conserve battery life.

5. MAINTENANCE & INSPECTION

WARNING

- ◆ *When performing an inspection or maintenance procedures, be sure to display a “CAUTION” sign on the crane and never try to operate it.*
- ◆ *Be sure to disconnect the power cable before carrying out any maintenance or inspection.*
- ◆ *Do not perform any inspection or maintenance while the hydraulic oil temperature is still high.*
- ◆ *When a part needs to be replaced, or if anything abnormal is found, contact an authorized UNIC Service Center for a consultation, inspection or repair as soon as possible.*

Pre-Operation Inspection

In order to maximize safety and efficiency in crane operations, make sure to inspect each part of the carrier, based on the table below:

Inspection Area	Items to Inspect and Service
Motor	Unusual noises, Unusual vibration, Unusual odor
Pump	Oil leakage, Unusual noises
Hydraulic Hose	Oil leakage, Damage
Hydraulic Oil Tank	Oil level, Oil leakage
Frame	Crack in electric power unit connection
Battery	Secure placement and connection

CAUTION

Always keep the unit in good condtion

Cleaning

Keep the crane clean at all times, as sand and fine dust may cause abnormal wear to the crane. Do not use a pressure washer to clean the crane. If highly pressurized water enters into the electrical system, it may cause the crane to malfunction.

5. MAINTENANCE & INSPECTION

Lubrication

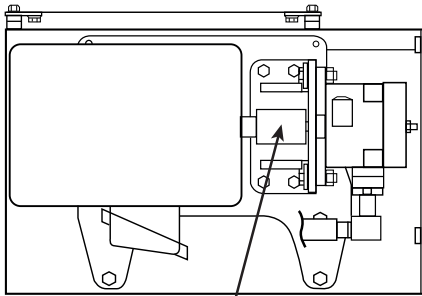
! WARNING

- ◆ **Turn off the electric motor and allow the temperature of the hydraulic oil to cool before performing any maintenance, inspection or lubrication.**
- ◆ **The temperature of the hydraulic and gear oils is very high and pressure builds up during operation. Opening the filling port while the oil temperature is high may cause the hydraulic/gear oils to spout out, causing a burn hazard.**

! CAUTION

- ◆ **In order to ensure smooth operation of each part of the crane, with minimum wear and a longer life, be sure to supply hydraulic oil as well as lubricant, which is indispensable to drive the hydraulic equipment.**
- ◆ **The warranty will be voided for failure to replace the lubricant as specified.**

Inside of Power Unit and Cover



Coupling

1. Hydraulic Oil

Use the UNIC genuine hydraulic oil listed below as the hydraulic oil of choice for the crane.

UNIC Hydro #32 (ISO VG32)

Hydraulic Oil tank capacity: 27 liters

2. Grease for Lubrication

Use the recommended grease listed below as grease for lubrication.

Chassis Grease No. 1

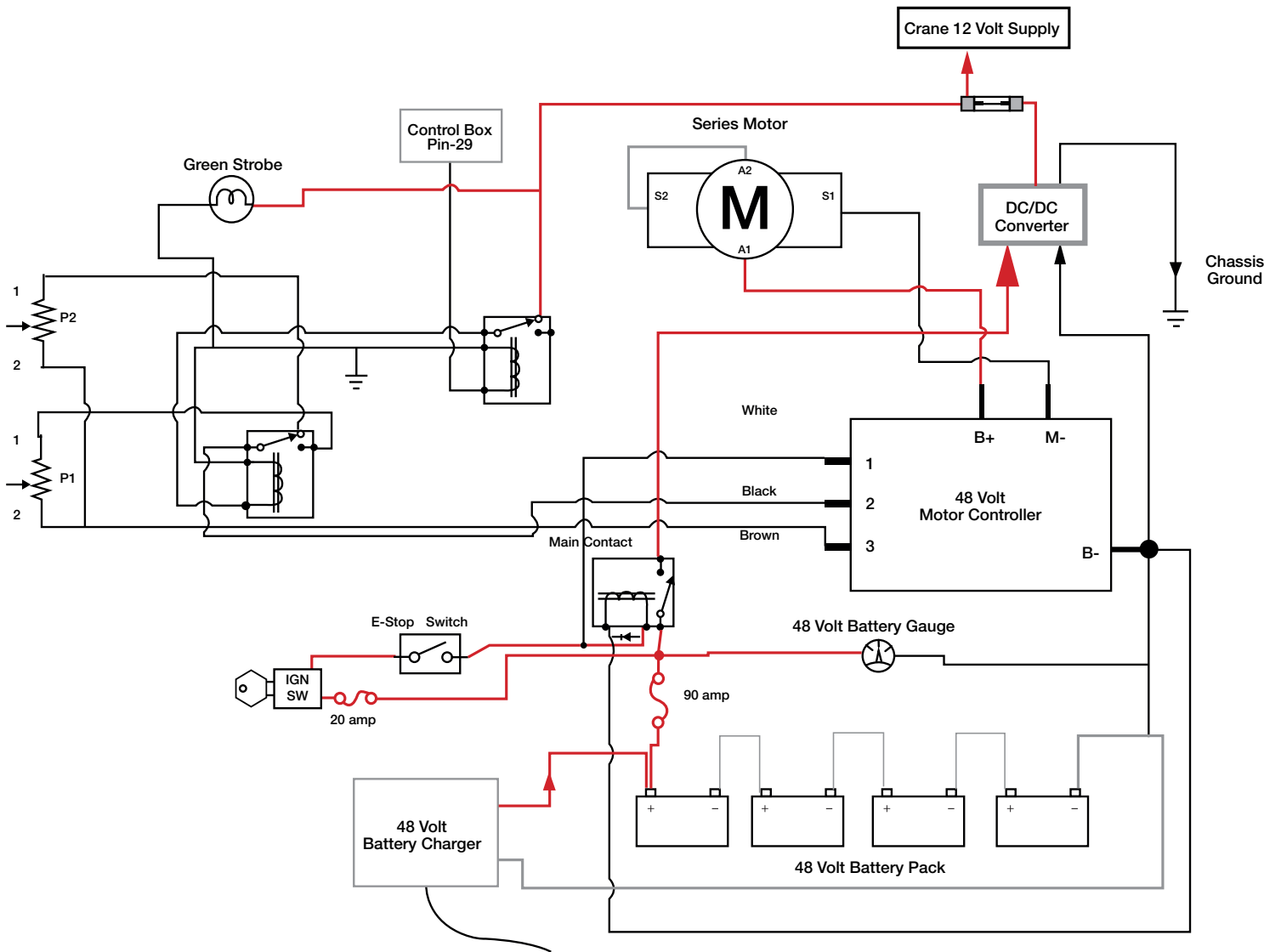
(NLGI No. 1 Grade, with consistency of 310~340)

Lubrication Points:






- Inside of Coupling
- Output Shaft of Electric Motor
- Input shaft of Hydraulic Pump

- ◆ **Replace Hydraulic Oil 3 months after starting to operate the crane and once every year or every 500 hours thereafter.**
- ◆ **Apply grease to lubricate the coupling during the periodical inspection once every 6 months.**






6. 48V SYSTEM SCHEMATIC



7. URW295CUBRS - PARTS LIST

<i>Qty</i>	<i>Part Number</i>	<i>Description</i>	
4	23506	Black Boot: 8 to 2 Gauge Cable	
3	23516	Black Boot: 2 Gauge to 2/0 Cable	
4	23507	Red Boot: 8 to 2 Gauge Cable	
3	23517	Red Boot: 2 Gauge to 2/0 Cable	
1	202 4505	Hydraulic Pump Mounting Spacer	

7. URW295CUBRS - PARTS LIST

<i>Qty</i>	<i>Part Number</i>	<i>Description</i>	
1	34H 100SK	Gear Belt Pulley: 34 Tooth	
1	202 4500	Pump Drive Shaft	
2	202 4518	Belt Drive Spacer: 1" x 4-1/2"	
1	202 4524	Belt Drive Idler Pulley Spacer-Long: 1" x 2-3/4"	
1	202 4522	Belt Drive Idler Pulley Spacer-Short: 1" x 1-1/8"	





7. URW295CUBRS - PARTS LIST

<i>Qty</i>	<i>Part Number</i>	<i>Description</i>	
1	ES-15-6	Electric Motor	
1	SK10014	1-1/4" QD Bushing	
1	38026	Idler Pulley: 100mm	
2	4768K8	High speed / High Load Ball Bearing with Retaining Ring	
1	202 4505	Pulley: 14 Tooth 7/8" Bore	

7. URW295CUBRS - PARTS LIST

<i>Qty</i>	<i>Part Number</i>	<i>Description</i>	
4	EV12A-A	12 Volt Battery: 140 Amp Hours	
1	AXE4855	Motor Controller	
1	IN35-915G	Green Strobe Light	
1	Delta Q	Smart Charger	
1		TPS	

7. URW295CUBRS - PARTS LIST

Qty	Part Number	Description	
1		TPS	
1	2024300	Battery Charger and Controller Mount	
2	9672K32	High DC Inrush Current Relay with Mounting Bracket	
1	348	48V Analog Meter: Battery Condition	
1	SW80-389	Main Contactor	